

SOME AMERICAN CONCHOLOGISTS.*

BY WILLIAM H. DALL.

I had selected another theme as the subject of my address on this occasion. But the press of engagements which had to be met prevented the completion of the work required by my first choice, and in looking about for a substitute which would require less original research I remembered that we have not anywhere an epitome of the biography of those naturalists who began in this country the study of the mollusca and who may be truly said to be the pioneers of American conchology.

There was the more propriety in the selection of this topic at the present time since in the year 1887 came the seventieth anniversary of the publication in the United States of the first paper on the American shells, by an American, which ever appeared. We can regard it as forming the extreme limit which might have been attained by a single life, mature enough in 1817 to have appreciated in some measure the dawn of conchological investigation in America. The only naturalist whose life nearly coincided with this period, the late Dr. Isaac Lea, passed over to the majority about a year ago, and, as it happens, his attention was not called to what the French call "the beautiful Science" until 1825.

The contributions of American investigators to the sum of our knowledge of the mollusca have been numerous and important. Many American publications are among the classics of this branch of science.†

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†Consult BINNEY (W. G.): Bibliography of North-American Conchology, previous to the year 1860, prepared for the Smithsonian Institution,

But it is not to their publications that I desire to direct your attention, nor to the reputation, due to their labors, acquired for the United States among foreign investigators. It is to the men themselves, the circumstances of their lives, their struggles in an inappreciative age, their unwearied and self-sacrificing devotion to the study of nature.

Of course, in an address of this sort, there is only time for the briefest mention of many facts of interest and value to the biographer; and it would be quite impossible to do even as much as this for all those who have a right to appear on a complete record. So I have confined my attention to some of those who may fairly be considered as pioneers, reserving for another occasion those still active, and many other worthy names.

Following the example of Coues and Goode in their classification of the students of vertebrate zoölogy, I may divide the study of mollusca in this country into three periods, although these are connected by many intermediate links. The infancy of the science, with a Linnæan classification, has no representation in American conchological literature, which sprang, full-grown, like Minerva from the head of Jove, from the Lamarckian school

Part i. Washington, Smithsonian Institution, March 1863; Part ii, June, 1864, 8vo, viii, 650, and iv, 298 pp. Also TRYON (G. W.): *A Sketch of the History of Conchology in the United States* (Am. Journ. Science, xxxiii, March 1862, pp. 13-32), and *List of American Writers on Recent Conchology*, with the titles of their memoirs and dates of publication. New York, Baillière, 1861, 8vo, 68 pp.

There are also a number of portraits of the more distinguished Conchologists given in the first and second volumes of the *American Journal of Conchology*, though these are not always as good as might be wished.

The above-mentioned works, which contain almost no biographical details, and various dictionaries and encyclopedias have been freely consulted for the material used in this address, but a good deal of it has been the result of personal inquiry, letter-writing, and even advertisement in the newspapers for dates and other missing details. To numerous correspondents I take this opportunity of expressing my thanks for data furnished and which would probably in a few years have been irretrievably lost.

of Europe. The first period might fitly bear the name of its inaugurator, Thomas Say. It is characterized by a rapid advance in the determination of the fauna, the classification of the species, and the exploration of vast areas. It extended from 1817 to 1841.

The second period should bear the name of Dr. A. A. Gould. It was inaugurated by his report on the Invertebrata of Massachusetts, and characterized by the broader scope of investigation, the interest in geographical distribution, the anatomy of the soft parts, and the more precise definition and exact discrimination of specific forms, as exemplified in his writings.

The third period would be appropriately called after Dr. William Stimpson, who eagerly adopted the radical changes in classification rendered necessary by the discoveries of Lovèn, and stood ready to welcome the theory of evolution with all the light it shed in dark places.

Though violently opposed to evolution, the teachings of Agassiz did much to hasten the fruition of the new school of students. For the rational methods of teaching and investigation which he devised or made popular, the present era is greatly in his debt. This period can hardly be said to have been introduced by any epoch-making work, but gradually the old methods were discarded for the new.

The latter were fully exemplified by such works as Morse's "Pulmonifera of Maine" (1864), Stimpson's "Hydrobiinæ" (1865), and a long list of subsequent publications.

Of men belonging to the Sayian period may be mentioned Say, Lesueur, Barnes, Green, Morton, Couthouy, Warren, Anthony, Nuttall, Haldeman, and Conrad.

Rafinesque was *sui generis*, and Lea links this period with the next.

Of the Gouldian period are Gould, Amos Binney, C. B. Adams, Carpenter.

Of the Stimpsonian period I can only refer to Bland, whose place is here rather than with Gould ; and lastly, Stimpson himself.

THOMAS SAY.

Thomas Say was born at Philadelphia, of Quaker ancestry, July 27, 1787. His father, as was usual in those days, united to the profession of a physician the duties of an apothecary. Young Say received a very rudimentary education in one of the Quaker schools and at the " Friends' Academy " at Weston, a few miles from Philadelphia. At a later time he studied pharmacy under his father's supervision, and was established in that business with another person whose steady habits it was supposed would ensure success. Among his acquaintance Say's name was always associated with honor and veracity. Conscious of rectitude himself, ingenuous and sincere, he took for granted that others were so, and, as is too often the case, he fell a victim to his trust in others. Having endorsed the business paper of ostensible friends, through their failure he was involved in financial ruin. His heart was not in business, he attended to it with indifference, and, from his school days, was drawn irresistibly toward a study of animated nature. March 21, 1812, he became a member of the Academy of Natural Sciences, then in the process of transformation from a social club to an association of naturalists. The president, William Maclure, seems to have been a warm and intimate friend of Say, and assisted him pecuniarily, for he became the first curator of the embryo museum and lived on its premises for several years, part of the time subsisting on such frugal fare as might be obtained for twelve cents a day ! His time was devoted to study and his reputation as a naturalist was already somewhat spread, for he was selected by the publishers to furnish several articles on American Natural History to the American edition of Nicholson's British Encyclopedia, a work which rapidly reached its third edition. In the winter of 1816-17 appeared the second

volume, in which the article "Conchology," consisting of fifteen pages and illustrated by four plates, was prepared by Say, and has the honor of being the first paper on American Conchology by an American which appeared in this country. It contained a general statement of the principles of the science as then understood, followed by descriptions of American land and fresh-water shells to the number of thirty-one species. The article was issued separately, with a title page, as "Descriptions of Land and Fresh-water Shells of the United States." The second edition, issued the following year, contained some improvements, and the third edition (1819) had the article considerably enlarged, as it forms twenty pages of the fourth volume of the series.*

The readiness with which Say responded to the requests of others, his liberality in communicating his knowledge to those who sought it, and his agreeable social qualities were the cause of so many interruptions that he was led to devote to study the hours which he should have given to repose, and often worked all night. This injudicious course resulted in serious derangement of the digestive organs, and weakened his constitution. These causes, together with habits of rigid austerity in diet, were probably instrumental in bringing about his premature decease.

In 1818, Say, Ord, Maclure, and Peale made an expedition to the sea islands of Georgia and the country east of Florida, then under Spanish rule. Later, Say was appointed chief zoölogist to the two expeditions to the headwaters of the Mississippi, etc., commanded by Major Long. The same modesty which led him to decline a professorship in an institution of learning on the ground of inadequate scholarship led him to decline the position of

*The first edition is very rare. A copy is said to exist in the library of the U. S. Naval Academy. The second edition occurs in the library of the Boston Athenæum and the Franklin Institute of Philadelphia. The original manuscript is in the archives of the Academy of Natural Sciences of Philadelphia.

historian of Long's expedition after the death of Dr. Baldwin, the first appointee. This modesty led to habits of retirement, and withdrew him from society, except that of his private friends, among whom he was idolized. His domestic virtues were beyond eulogy, and his disposition was so truly amiable, his manners so charming, that no one, having once formed his acquaintance, could cease to esteem him.

These qualities led him to be influenced by those whom he admired, and who possessed a more pushing and self-assertive disposition. It is probable that the great mistake of his life was due to influence thus exerted by his friend and patron, Wm. Maclure.

About the year 1824 the recurrence of one of those waves of sentiment, which, like spots on the sun, appear at intervals, with a certain regularity, to obscure the common sense of the most benevolent and enlightened of mankind, led to the disinterested, though foolish, investment by Robert Owen of large sums in a socialistic enterprise. At the village of New Harmony, in a malarious situation on the Wabash river of Indiana, the sun of righteousness, letters, and science was to rise and illuminate the benighted Western world. Mr. Maclure became convinced of the truth of the gospel according to Owen, and, in 1825, set out for the New Jerusalem, involving in his train his friend Say and several other naturalists. With them went several ladies of intelligence and beauty, one of whom, Lucy Sistare, became the devoted wife of Say, and long survived him.* In a little more than a year the community went to pieces, one founder retiring to Europe, and the other to Mexico, disgusted with the intractability of human nature. It is sufficient to quote a criticism by the son, Robert Dale Owen, himself a member of the community, as given in his autobiography fifty years later:† "I do not believe that any

*She died in 1886, according to Mr. Schwarz.

†Threading my Way, by Robert Dale Owen. 8vo. New York, Carleton & Co., 1874; p. 290.

industrial experiment can succeed which proposes equal remuneration to all men, the diligent and the dilatory, the skilled artisan and the common laborer, the genius and the drudge. What may be safely predicted is that a plan which remunerates all alike will, in the present condition of society, ultimately eliminate from a co-operative association the skilled, efficient, and industrious members, leaving an ineffective and sluggish residue, in whose hands the experiment will fail, both socially and pecuniarily."

But Say had become involved for life. He had married, he had accepted the agency of the property, the duties of which compelled his presence on the spot; he had no other means of support, and therefore resigned himself with his usual philosophy to await the course of events, appropriating all his moments of leisure to his favorite pursuits, and preserving unruffled the serenity of his mind. Mrs. Say prepared drawings and lithographs, and on a little hand-press the early numbers of the "American Conchology" were printed.

The malaria began to influence his health. Had he felt free to follow his medical advice or the affectionate solicitation of his friends, he would have returned to the more genial climate of his native city. But a sense of duty predominated over the claims of affection and the terrors of death, and he remained to become a sacrifice to a fever, which carried him off on the 10th of October, 1834.

I have seen no description of Mr. Say's personal appearance, but his portrait* indicates that his face and expression were in harmony with his amiable character.

*National Portrait Gallery, vol. iv. Copied in *Am. Journ. Conchology*, vol. i, 1865. Biography, by Ord, in LeConte's edition of Say's *American Entomology*, and in Waldie's *Select Circular Library*, vol. v, 1835, by B. H. Coates, M. D. It seems evident from the hypercritical and patronizing tone of Ord's biography that his old friendship for Say had been severely wrenched, if not broken, by the personal controversies which raged so violently at Philadelphia, and involved nearly all the scientific workers, or those interested in the progress of science, of which Philadelphia was then the American centre. A better biography of Say is greatly needed.

His conchological work was far above the average of its day, and fully abreast of the knowledge of the time.

His monument,* erected in 1846 by Alexander, brother of William Maclure, in the garden of the Maclure mansion at New Harmony, bears the following appropriate lines :

Votary of Nature, even from a child,
He sought her presence in the trackless wild.
To him the shell, the insect, and the flower
Were bright and cherished emblems of her power;
In her he saw a spirit all divine,
And worshipped like a pilgrim at her shrine.

CHARLES ALEXANDER LESUEUR.

Second, in point of time, among those who published in America on American and other mollusks, is Charles Alexander Lesueur,† born at Havre-de-Grace, France, Jan. 1, 1778.

He grew up with a love for natural history so great that in order to accompany the scientific expedition of the "Geographe" under Baudin in the year 1800 he enlisted as a landsman among the crew. Another enthusiast who had, as it were, forced himself upon the expedition was François Péron, who discovered the unusual talents of Lesueur as an artist and succeeded in getting him transferred to the position of zoölogical draughtsman, where those talents could be put to their proper use. Henceforth the two young men were inseparable friends. The commander of the expedition turned out to be most unfit for his position. Besides exhibiting great inhumanity to his subordinates, it is alleged that he was no better than a thief and appropriated to his own emolument the stores of the expedition. He died at last, with many of the others, and finally of the scientific staff only Péron and Lesueur returned to France in 1804. Six years later Péron

* Recently described by Mr. E. A. Schwarz in *Proc. Ent. Soc., Wash.*, vol. i, No. 2.

† See *Memoir*, by George Ord, in *Silliman's Journal*, second series, vol. viii, p. 189, 1849.

died in the midst of his labors. Lesueur, inconsolable, was induced to take a voyage to the Antilles and the United States to remove the melancholy which oppressed him. He arrived in the United States in 1816 and settled in Philadelphia the following year, where he taught drawing and pursued his studies, being very cordially received by the resident naturalists. After a residence of nine years in Philadelphia, where he was in a situation most congenial to his tastes and useful to science, he was impelled, through a mistaken sense of duty, to join the settlement of Socialists at New Harmony, Indiana. The presence of Mr. Say rendered the new situation endurable for a time, but with his death in 1834 the delusive expectation that human virtue would increase in the ratio that human individuality was stifled faded completely away, and the position was no longer bearable. He departed for New Orleans and for France, where his tastes and acquirements found their opportunity of fruition at Paris, near the Jardin des Plantes, and afterward at Havre, where a museum was established, of which he was appointed curator in 1845. He was attacked by sudden inflammation of the lungs, which carried him off on the 12th of Dec., 1846, in the 68th year of his age.

Lesueur was a man of unobtrusive and modest manners and social and amicable disposition. Frugal himself, he was generous to others, even in cases where prudence would justify reserve. He suffered from robbery, perpetrated under the guise of friendship, yet with the remnant he had left, and the infirmities of age coming upon him, he shared with others whose necessities were greater than his own.

Lesueur was more of an ichthyologist than a conchologist, but his paper on *Firola*, in vol. 1 of the *Journal of the Academy of Natural Sciences*, was the second paper on mollusks published in the United States and the first on exotic mollusks which appeared here.

DANIEL HENRY BARNES.

The Rev. Daniel Henry Barnes, of the Baptist denomination, was born in Canaan, N. Y., April 25, 1785, and was killed by falling from a stage coach between Nassau and Troy, N. Y., October 27, 1828. He graduated at Union College in 1809, and took charge for three years of the classical school there, at a later time. Afterward he was professor of languages in the Baptist Theological Seminary, and in 1824 was associate principal of the New York High School for Boys, an institution he is said to have originated and conducted with great ability. He declined calls to the Presidency of Waterville College, Maine, and the Columbian University, of Washington, D. C. He was a man of high reputation for character and culture, and one of the chief promoters of the New York Lyceum of Natural History, now the New York Academy of Sciences. He assisted Webster in the preparation of his dictionary, and published several early papers on the *Unionida* and Chitons, of which he described several forms, while others have been named in his honor by several naturalists.

JACOB GREEN.

Another of the earliest contributors to molluscan literature in America was Dr. Jacob Green, who was born July 26, 1790, at Philadelphia, and died there February 1, 1841. He was the son of Ashbel Green, President of Princeton College in 1812, and grandson of the Revolutionary patriot, the Rev. Jacob Green, who was President of the College of New Jersey in 1757. Our conchologist graduated at the University of Pennsylvania in 1806, was professor of chemistry and natural history at Princeton 1818-22, and then professor of chemistry in the Jefferson Medical College, of Philadelphia, until his death. While his contributions to conchology were not numerous they were of a high order of merit, and on other subjects, such as chemistry, paleontology

(Trilobites), and botany, his work procured him a wide-spread and excellent reputation.

JOHN WARREN.

It may not be amiss to mention here an old Englishman named John Warren, who for many years dealt in shells and curiosities in Boston. About 1857 he was still extant. I have little personal information about him, but remember him as a stout, florid old gentleman, who supplied Miss Sarah Pratt and other Boston amateurs with handsome shells at high prices. In 1834 he published a small quarto edition of Lamarck's genera of shells, illustrated with 17 plates, which he entitled "The Conchologist."

He did no original work, but, singularly enough, in Carus and Englemann's Bibliography, he is confounded with Dr. J. C. Warren, the distinguished surgeon of Boston, who published some papers on molluscan anatomy.

SAMUEL GEORGE MORTON.

Among those who have promoted the study of mollusca from the paleontological side, one of the earliest and most distinguished names is that of Samuel George Morton.* Born in Philadelphia Jan. 26, 1799, of Irish ancestry and of a family in which the gifts of education were highly prized and abundantly enjoyed, he early lost his father, and at the age of sixteen entered a counting-room to be prepared for a mercantile career. His desire for study monopolized his leisure, and in 1817 he entered the medical school of the University of Pennsylvania, where he graduated in 1820 with honors, and afterwards pursued his studies at Paris and in Edinburgh. In 1826 he returned to Philadelphia, where he practiced his profession and pursued his scientific studies, and the following year he married Rebecca Pearsall. His career was terminated on the 15th of May, 1851, by an attack of pneumonia,

* See Silliman's Journal, 2d series, vol. xiii, p. 153, March, 1852.

but not until his name, through his scientific work, had become familiar to scholars in both hemispheres. His synopsis of the organic remains in the Cretaceous formation of the United States gave him a high reputation and materially advanced the science. Morton was enthusiastic and energetic, but neither vain nor arrogant. He was drawn into the early controversies which involved the Philadelphian group of naturalists, and appears in them as the especial champion of Say and Conrad. He had a literary turn and strong religious convictions, both of which are perceptible in his scientific publications.

THOMAS NUTTALL.

Although he was especially distinguished in the domain of botany, yet by his shell collections in various parts of America, and somewhat belated studies of this conchological material, it becomes proper to include in this summary, a notice of Thomas Nuttall. Born in Settle, Yorkshire, in 1786, he was in very humble circumstances, and as a journeyman printer had few opportunities for mental development. Yet he was endowed with a strong, clear intellect, the faculty of self-denial, and the passion for study and for the investigation of nature. A hope of improving his position in life and of finding opportunity for study of the natural sciences brought him to the United States in 1808, when only 22 years of age. Through the influence of Barton, the botanist, he was led to take up the study of plants, and a large part of his life was thenceforth devoted to exploration and research. In 1817 he already had been admitted to several scientific societies of high standing. In 1822 he succeeded Peck in charge of the botanic garden at Cambridge, Mass. In 1842 a small estate near Liverpool was left him by a relative, on the condition that he resided upon it at least nine months of every year. He then returned to England, where he died at the age of seventy-three, September 10, 1859. Durand says of him :* "He was a

* Biographical Notice, Proc. Am. Philos. Soc., vii, p. 297, 1860.

remarkable looking man; his head was very large, bald, and bore marks of a vigorous intellect; his forehead expansive, but his features diminutive, with a small nose, thin lips, and round chin, and with gray eyes under fleshy eyebrows. His height was above the middle, his person stout, with a slight stoop; and his walk peculiar and mincing, resembling that of an Indian. Nuttall was naturally shy and reserved in his manners in general society, but not so with those who knew him well. If silent or perhaps morose in the presence of those for whom he felt a sort of antipathy, yet, when with congenial companions, he was affable and courteous, communicative and agreeable." * * * "I have frequently seen him in social circles when he was the delight of the company, from his cheerful and natural replies to all questions, and his voluntary details on the subject of his travels and adventures." * * * "Nuttall was extremely economical in his habits and careless about his dress. None of his Philadelphia friends, I believe, ever knew where he resided, or in what manner he lived." The profession of science is not a very profitable one, yet, in spite of the few opportunities he had for accumulating, he had succeeded, through the strictest saving, in laying aside enough for his old age, even if he had not inherited the estate of Nut Grove, which was encumbered with annuities and burdened with a heavy income tax.

Nuttall's adventures and privations while exploring among hostile Indians, or during long voyages, were many and exciting, but he declared to his friends that hardships were cheaply purchased if they brought him the opportunity for travel and the contemplation of nature, which he found a source of constant delight.



J. P. COUTHOUY.

JOSEPH PITY COUTHOUY.

Among the early papers on mollusca in the *Journal of the Boston Society of Natural History* none are more finished and satisfactory than those by Joseph Pitty Couthouy. Born in Boston January 6, 1808, of French extraction, I learn that he joined the Boston Latin School with the class which entered in 1820. His tastes were for a seafaring life; he shipped on board his father's vessel and rose rapidly in his profession. He married Mary Greenwood Wild, March 9, 1832. He became a member of the Boston Society of Natural History April 6, 1836, and in the reference to his first paper, read October 5, 1836, I find him styled Captain Couthouy. A year later the United States exploring expedition under Wilkes was projected, and, full of enthusiasm,

Couthouy came on in person and applied to President Andrew Jackson for a position on the scientific corps. The President said he could not seriously entertain the application as the list of officers was already complete. To which the irrepressible young sailor replied, "Well, General, I'll be hanged if I don't go, if I have to go before the mast!"* This pleased "Old Hickory," who told him, "Go back to Boston and I will see if anything can be done for you." There, a few days after his return, his commission as Conchologist of the Scientific Corps was received. He sailed with the expedition August 18, 1838. After leaving Samoa his health suffered. Wilkes, who was preparing a narrative of the expedition, demanded that Couthouy should turn all his notes and drawings over to his commander. Couthouy refused, as he considered that his subsequent work would be crippled by the absence of notes and drawings already made, and that as a member of the scientific corps he was entitled to retain his papers until the end of the voyage. He was thereupon suspended by Wilkes and ordered home from Honolulu in 1840, "for disobedience of orders."

He had made many valuable drawings and notes, many of which are preserved in the report on the Mollusca and Shells of the expedition. He had numbered his notes with a serial number, and a tin tag, similarly numbered, was attached to the specimen, which was preserved in spirits for future anatomical study and identification. The authorities in Washington had appointed a reverend gentleman who knew nothing of science, with a fat salary, to unpack and take care of the specimens sent home by the expedition. This gentleman, finding that the presence of some lead in the tinfoil tags was whitening the alcohol, carefully removed all the tags and put them in a bottle by themselves without replacing them by any other means of identification. Twenty years ago I saw this bottle of tags on a shelf at

* *i. e.*, as a common sailor.

the Smithsonian and heard its mournful history. Prominent conchologists resident in the United States were favored, for a consideration, with many rare specimens before any of the expedition naturalists had returned. Some of those contemporary with the events have told me of the prizes secured in this immoral manner, unworthy of a true naturalist, though doubtless the temptation was great.

The result of such proceedings may be imagined. Couthouy found that the shells to which many of his notes related could not be identified, and others had disappeared altogether. He worked over the mass that remained until the return of the expedition, when, to crown all his misfortunes, the pay of the naturalists was reduced forty-four per cent., though low enough previously. For Couthouy, who had a wife and two children to support, it was the last straw. He declined to attempt the report, and his papers and collections, after sundry vicissitudes, were put into the hands of Dr. A. A. Gould, who bears willing testimony to the value of Couthouy's work. After this he returned to his profession as a master in the mercantile marine, visiting South America and the Pacific. In 1854 he took command of an expedition to the Bay of Cumana, where he spent three years in the unsuccessful search for the wreck of a Spanish treasure ship, the *San Pedro*, lost there early in the century. Our next trace of him is shortly after the outbreak of the rebellion. He volunteered in the navy, and, August 26, 1861, was appointed acting volunteer lieutenant. Five days later he was ordered to command the U. S. bark *Kingfisher*; December 31, 1862, to command U. S. S. *Columbia*, which was wrecked, and Couthouy made prisoner. After three months at Salisbury he was exchanged, and, May 29, 1863, ordered to the Mississippi squadron to command the monitor *Osage*, but was transferred to U. S. steamer *Chillicothe*. On the 3d of April, 1864, while off Grand Ecore, Louisiana, on the turret of his vessel, he was shot from an ambush on the

shore, and died the following day. The dispatches announcing his death bore testimony to his value as an officer. He was eulogized by Admiral Porter and his fellow officers of the flotilla.

Those who knew Couthouy describe him as active and enthusiastic, with reminders of his French ancestry in his physiognomy and manner; of middle height, dark complexion, and more trim in his dress and refined in his ways than would have been expected from one who had always followed the sea. One friend says of him: "As brave and gallant a soul as ever trod a deck, and a lively and always entertaining companion."

I am informed that he left a son, Joseph P., and two daughters in Boston, and the family is not extinct there. His signature to some documents at the Navy Department is in a handsome flowing hand. He was a good linguist, speaking Spanish, French, Italian, and Portuguese with fluency, and had even mastered several dialects used among the Pacific Islands.

I have not yet come on the track of any published portrait of Couthouy, and none of the biographical dictionaries or cyclopedias refer to him. I have therefore gone into detail a little more fully than I should otherwise have done to preserve from oblivion the memory of a patriotic officer and a good conchologist.

The sketch portrait which accompanies these notes, in default of a better, was derived from an unsatisfactory photograph, the only thing available, taken between 1861 and 1863 and kindly lent to the writer by a surviving relative.

JOHN GOULD ANTHONY.

A naturalist who has left his mark on the classification of our fresh-water shells was John Gould Anthony, who was born in Providence, Rhode Island, May 17, 1804, and died in Cambridge, Mass., Oct. 16, 1877. Mr. Anthony had few educational advantages, leaving school at the age of twelve years, and, going to Cincinnati, engaged in business, where he continued for thirty-

five years. In 1863 he was placed in charge of the mollusk collection at the Museum of Comparative Zoölogy in Cambridge by Prof. Louis Agassiz, whom he accompanied to Brazil on the Thayer expedition in 1865. Mr. Anthony was a man of small and delicate frame, with a well-shaped head, whose brilliant dark eyes were a marked feature in his countenance. He suffered in later years from an affection which impaired his sight, and at times prevented him from doing any work. To this cause is due the fact that some of his later work was occasionally wanting in the precision and accuracy which characterized that of an earlier time. He wrote a very beautiful, clear hand, and his labels were as elegant as if engraved on copper. The attractiveness of the Cambridge collection is largely due to his unwearied efforts. A portrait of Mr. Anthony, though not a very good one, was published in the *American Journal of Conchology*, vol. ii, part 2, 1866. His collection was added to that of the museum at Cambridge.

SAMUEL STEHMAN HALDEMAN.

Samuel Stehman Haldeman was born at Locust Grove, Pennsylvania, Aug. 12, 1812, and died at Chickies on the 10th of September, 1880.

He studied in a classical school at Harrisburg and for two years at Dickinson College, but did not graduate. In 1836 he was called to assist the late H. D. Rogers in the geological survey of New Jersey, and from 1837 to 1842 was engaged in geological work on the State Survey of Pennsylvania. In 1851 he was professor of natural science in the University of Pennsylvania, and from 1869-80 professor of comparative philology in the same institution. He was a member of the National Academy of Sciences. His papers number over two hundred titles, and include such subjects as chess, the natural sciences, and especially philology. He was a distinguished philologist, but to American

conchologists his memory will always be grateful, since he was the first to illustrate a work on American mollusks with the beautiful engravings on copper, which were the product of Lawson's burin. These illustrations, though issued as early as 1840, are as fine as anything which can be found in the literature to the present day. Haldeman was short and thickset, with a very peculiar voice, piercing dark eyes, and a pleasant and unaffected manner. He was in easy circumstances, and the freedom which this gave him resulted in a wide and somewhat desultory range of study, and heightened some personal peculiarities of mind.

TIMOTHY ABBOTT CONRAD.

Distinguished among conchologists and paleontologists alike was Timothy Abbott Conrad, born in New Jersey in 1803, who died at Trenton Aug. 9, 1877. Information in regard to him I have found rather difficult to obtain, but it would seem that he was always interested in the natural sciences, especially geology and paleontology, and in 1837 was appointed one of the geologists to the State of New York, and prepared the report for that year. He was paleontologist to the survey in 1838-41. He prepared paleontological reports on the collections of the U. S. exploring expedition under Wilkes, of Lynch's U. S. expedition to the Dead Sea, the Mexican boundary survey, and some of the Pacific Railway explorations. He never married, and during the latter part of his life lived on a small property near Trenton, coming into Philadelphia frequently to pursue his work at the Academy. He was of spare proportions, rather shy and reserved, wrote an abominable hand, and was very careless about his letters, which were largely on scraps of paper without date or location. He drew many of his own plates on stone, and his peculiar style of illustration is very recognizable. Though his contributions to science were multitudinous and long continued, his native carelessness, brief diagnoses, and errors of date and citation gave his

work among the more conservative conchologists a reputation perhaps less than its deserts. His defects were chiefly constitutional, rather than wilful; he had an acute and observant eye, and an excellent, if sometimes hasty, judgment on matters of geology and classification. When we consider his work with that of the naturalists of the French "New School" of the present day, there seems in comparison little to complain of in Conrad's methods. Early in life he undertook several journeys to the South especially for collecting purposes, and several naturalists contributed to his expenses with the view of receiving series of the fossils. An unfortunate controversy arose from the conflicting claims to the right and priority of description of many of these species, to which Conrad's extreme carelessness no doubt in a large part contributed. At all events the conflict raged with great violence for several years, and burdened the literature with many synonyms. The matter was still further complicated by the fact that some of his friends, among whom Morton and Say have been mentioned, to preserve, as they supposed, Conrad's rights, wrote and published certain descriptions from his material during his absence and without his knowledge, of which he was obliged, for their sake, to assume the responsibility on his return. To this day the dates of publication of the various parts of his "Tertiary Fossils" are unknown to the public, and were not remembered by the author within a range of several years. Conrad dabbled in literature, and printed a little volume of poems for distribution among his friends. I have heard that all his invaluable documents and manuscripts were sold or destroyed as waste paper shortly after his death through the ignorance of his heirs.

CONSTANTINE SAMUEL RAFINESQUE-SCHMALTZ.

One of the most singular figures in the portrait gallery of scientific men, eccentric as many of them have always been considered, is that of Constantine Samuel Rafinesque-Schmaltz. He

was born in Galata, a suburb of Constantinople, Oct. 22, 1783, and died at Philadelphia, Sept. 18, 1840, of cancer of the stomach. His father's name was Rafinesque, and he was of French extraction, but during the hostilities between the French and Neapolitans, which arose about the time he settled in Sicily, he added the name of his mother to his own and represented himself as an American. He arrived in the United States when only nineteen years of age (1802), and returned to Europe in 1805, after which, according to his own account, he was engaged in commercial pursuits and scientific studies at Palermo. He travelled furiously, and collected wherever he went. In 1815 he returned to this country, but the vessel which brought him was wrecked on the coast of Connecticut, and his collections and property were lost, leaving him in a state of poverty from which he never was able to emerge. He was, however, received by American naturalists and others as became his acquirements, and, in 1819, was appointed professor of botany and natural history in Transylvania University, Lexington, Kentucky, which remained his headquarters, in spite of many pedestrian journeys, until 1826, when he removed to Philadelphia, where he remained until his death. His multitudinous writings have been reviewed by Gray, Haldeman, and Tryon in the *American Journal of Science*, and by Amos Binney in his *Terrestrial Mollusks of the United States*.*

Rafinesque was a marked example of the adage, "Great wit to madness nearly is allied," and the workings of a mind of unusual acumen, brilliancy, and activity were always clouded by a certain incoherency due to his highly excitable and versatile temperament. He possessed talents which, properly regulated, would have carried him to the front rank of scientific workers.

* See Silliman's *Journal*, vol. 40, 1st series, p. 221, 1841; also vol. 42, pp. 280-91, 1842, and vol. xxxiii, 2d series, p. 163, March, 1862; and *Terr. Moll.*, 1, pp. 41-54.

In 1836 we find him insisting, in his *Flora Telluriana*, that new species and new genera are continually produced by deviation from existing forms. Every variety is a deviation which becomes a species as soon as it is fixed sufficiently to constantly reproduce its kind. Many of the genera he suggested are fully recognized to-day, though by his contemporaries regarded as worthless. But from about 1819 a marked deterioration was noticed in his work, which finally became tinged deeply with a sort of monomania. Societies and journals were obliged to refuse his writings, which poured forth in an ever-increasing flood. When he could obtain means he printed for himself, in shabby and miserable form it is true, but still he printed and projected journals and works which died still-born or never saw the light. His madness seems to have culminated in one of his publications where he describes twelve new species of thunder and lightning.

Of his personal appearance we have the following amusing notes from Audubon's journal :

“A long, loose coat of yellow nankeen, on which the inroads of time were plainly visible, stained as it was with the juice of many a plant, hung about him like a sack. A waistcoat of the same, with enormous pockets and buttoned up to the chin, reached below over a pair of tight pantaloons, the lower parts of which were buttoned down to the ankles. The dignity he acquired from the broad and prominent brow which ornamented his countenance was somewhat diminished by the forlorn appearance of his long beard and the mass of lank black hair which fell from his shoulders.” After relating the distance he had walked he expressed his regret that his apparel should have suffered, but at the same time he eagerly refused the offer of any clean clothes, and it was with evident reluctance he accepted an invitation for ablution. The surprise of the ladies of Audubon's family was involuntarily manifested in the exchange of glances which spoke volumes. Soon, however, their astonishment was converted into

admiration at the ease and enlightenment of his conversation. Plants and animals with which he was unfamiliar aroused in him a sort of delirium or ecstasy. At night Audubon was surprised by an uproar in the naturalist's apartment. On reaching it to ascertain the cause, he found his guest divested of all clothing, rushing about the room engaged in a sanguinary contest with the bats which had entered by the open window. His weapon was the handle of Audubon's favorite violin, which had been demolished in the fray. Without noticing the entrance of his host he continued his extraordinary gyrations until he was so exhausted that he could hardly use his voice to request that Audubon would obtain a specimen for him, as he was convinced they were of a new species.

Notwithstanding this unpromising beginning, Rafinesque remained three weeks in Audubon's family, who became perfectly reconciled to his oddities and found him a most agreeable and intelligent companion. One evening, however, he suddenly disappeared, without a word to anyone, and it was only after some weeks that a letter was received which assured his entertainers of his gratitude and his safety.

In contrast to his carelessness about his personal appearance, the older Silliman speaks of his beautiful and exact chirography, and says that his communications were always in the neatest possible form. Even in his direst poverty he always retained friends and admirers. It is certain that he must have possessed many lovable qualities.

In this connection we may call to mind a friend, Charles A. Poulsen, of Philadelphia, who was devoted to conchology and had a fine collection. Mr. Poulsen translated Rafinesque's "Monograph of the Bivalve shells of the river Ohio" in 1832, and for years his cabinet was resorted to in the vain hope of positively determining some of Rafinesque's ill-defined species. Mr. Poulsen died in Philadelphia in 1866, and I have heard that his collection

was dispersed, many specimens being acquired by the late well-known conchologist, C. M. Wheatley, of Phœnixville, Pennsylvania.

ISAAC LEA.

Dr. Isaac Lea, of Philadelphia, whose long and active life gave him among the younger generation the title of the Nestor of American Naturalists, was born in Wilmington, Delaware, March 4, 1792, and died at his home in Philadelphia in his ninety-fifth year, Dec. 8, 1886. His ancestors came from Gloucestershire, England, accompanying William Penn on his second visit. His taste for natural history manifested itself at an early age, and was fostered by his mother, who was fond of botany, and by his association with Vanuxem, then a youth, who was devoted to mineralogy and geology, then hardly organized as sciences. Their studies were undirected; but, in 1815, they became members of the Academy of Natural Sciences, then about three years old. Though engaged in business, young Lea became an active member of the Academy, and published a mineralogical paper in its journal in 1817. This was followed by a very long series of contributions to mineralogy and conchology, recent and fossil, which have made his name familiar to naturalists all over the world.

He married, in 1821, Miss Frances A. Carey, daughter of Matthew Carey, the well-known economist, and became a member of the publishing house of Carey & Sons, from which he retired in 1851. Mr. Lea's married life was exceptionally long and happy, lasting fifty-two years, and blessed with a daughter and two sons, who still survive. One of these sons is the well-known student of ecclesiastical history, while the other has long stood at the head of American photographic chemists.

In 1825 began those studies of fresh-water and land shells, especially the Unios, with which Dr. Lea's name will always be associated. In 1836 he published his first "Synopsis" of the



DR. ISAAC LEA.



genus, a thin octavo of fifty-nine pages. The fourth edition of this work appeared in 1870, when it had grown to 214 pages quarto.

Dr. Lea was a member of most American and many foreign scientific societies. He visited Europe and studied his favorite mollusks at all the museums. There he made the acquaintance of Férussac, Brogniart, Gay, Kiener, and other distinguished men, whose names now sound like echoes from a past epoch. Up to 1874 he continued ever busy on the *Unionidæ*, and the number of new forms, recent and fossil, made known by him amounts to nearly 2,000. Not content with figuring and describing the shells alone, he figured the embryonic forms of thirty-eight species of *Unio*, and described the soft parts of more than 200. He also investigated physiological questions, such as the sensitiveness of these mollusks to sunlight and the differences due to sex. His observations on the genus *Unio* form 13 quarto volumes, magnificently illustrated. Dr. Lea was president of the American Association for the Advancement of Science in 1860; he presided over the Academy of Natural Sciences in Philadelphia for several terms, and was given the degree of LL. D. by Harvard College in 1852.

His scientific activity extended over more than sixty years. He was active in affairs and vigorously participated in those controversies in which Say, Conrad, Morton, and others were engaged half a century ago. Of these the echoes only have come down to us, but there is plenty of evidence that the battle was often hot and the victory energetically contested.

Dr. Lea had an intellectual and, in later years, a most venerable presence. He was ever anxious to interest the young in scientific pursuits, and was notably active in charitable and religious enterprises. In his youth he manifested more than ordinary artistic talent, much like his distinguished contemporary, Alvan Clark.

It is impossible to do justice to such a life as Dr. Lea's in the proper limits of an address of this sort. It is of the less importance in the present case, because an excellent bibliography of his works, preceded by a biographical sketch and an admirably etched portrait, has been published by the U. S. National Museum,* to whom Dr. Lea bequeathed his invaluable collection of minerals and shells.

AUGUSTUS ADDISON GOULD.

Among those, next to Say, who have beneficially influenced the study of mollusca in this country, and interested young people in that pursuit, no name stands higher than that of Augustus Addison Gould. He was born in New Ipswich, New Hampshire, April 23, 1805, and died of cholera in Boston on the 15th of September, 1866. His father was originally named Nathaniel Gould Duren, but, on account of an inheritance, reversed the order of his surnames. The father was a musician, artist, and engraver, noted for his elegant penmanship, and of a good Chelmsford family; but not in affluent circumstances. From him Dr. Gould probably derived his facility as a delineator of shells. In early life young Gould knew privation, but he persevered in his endeavors for an education, and succeeded in carrying himself through college, graduating at Harvard in 1825, and in medicine in 1830.

He devoted his energies largely to his profession, which he regarded as the work of his life, and in which he soon rose to deserved eminence. But natural science claimed his leisure hours, and to increase them he often robbed himself of sleep. He taught botany and zoölogy at Harvard for two years, was one of the founders and earnest supporters of the Boston Society of Natural History, and original member of the National Academy,

* Bulletin No. 23, compiled by N. P. Scudder.

and president of the Massachusetts Medical Society in 1865, and until his death. A brother was a member of the well-known firm of Gould & Lincoln, publishers, and through them a number of Dr. Gould's works were republished during his lifetime. It is unnecessary to enumerate his works—the mollusca of the Wilkes exploring expedition, and the magnificent posthumous work on American land shells, edited by Dr. Gould for the executors of Amos Binney, would have given him lasting fame. But the work which was most useful to American science was his classical Report on the Invertebrata of Massachusetts, published by the State in 1841, and adorned with fine copper-plates from his own drawings. This was practically devoted to the mollusks, and served as a manual for New England shells, excellent in every way, and free from unnecessary technicality or pedantic expressions. The speaker well remembers the value this book had for him in his boyish days, and it is said that to it Stimpson owed the impulse which led him, in spite of obstacles, to devote himself to science.

Dr. Gould was tall, spare, with dark gray eyes, and hair originally dark, but gray at the time I first knew him. He was the ideal of the "Good Physician," with a winning, sympathetic manner; quiet, and slightly reserved to strangers, but with a living spring of gentle humor for his friends. Full of kindness, true piety, self-denial, and noble impulses, no one could know him, in the midst of his interesting family, without loving and honoring the man as well as admiring the scientist. The clear, straightforward and exact quality of his work made it easy of comprehension, and there is no knowing how many persons were inspired by it to a study of the animals he described. He was particularly able in his study of the smaller forms of land shells, which he drew with wonderful accuracy and artistic taste. A good portrait of Dr. Gould was published in the Annual of Scientific Discovery for 1861 and afterward reprinted in the

American Journal of Conchology, vol. 1, part 4, 1865.* This picture, though well executed, wants the winning expression which was characteristic of his face.

AMOS BINNEY.

The first to project and illustrate in the highest style of the art a work on the Helicidæ of the United States, doing for the land-shells what Haldeman had attempted for the fresh-water gastropods, was Amos Binney, of Boston, born October 18, 1803, who died at Rome, Italy, February 18, 1847, leaving his work still incomplete. He graduated at Brown University in 1821, and in medicine at Harvard in 1826, but his health proving precarious he devoted himself to commercial pursuits with remarkable success, reserving his leisure for science and art, of which he was passionately fond. He was one of the founders and a liberal giver to the Boston Society of Natural History, which elected him its president from 1843 until his death. He was active in establishing the American Association of Naturalists and Geologists, which has since developed into the American Association for the Advancement of Science.

As a member of the Massachusetts General Court† he was instrumental in securing the organization of the zoölogical and botanical commissions to which we owe the classical Massachusetts Reports by Harris, Emerson, Storer, and Gould.

At his death his work on the Terrestrial Mollusks of the United States was unfinished, but he provided in his will for its completion, a work for which his executors designated his friend and townsman, Dr. Gould, as editor. This work is unsurpassed in elegance of execution by any similar publication to the present

* A brief notice of Dr. Gould's life appeared in those copies of the second edition of the "Invertebrata" which were distributed by his family. There is a notice by Dr. Jacob Bigelow in the transactions of the Suffolk County Medical Society in 1866.

† So the legislature is styled in that State.

day. The premature death by pneumonia of Dr. Binney cut off many promising plans for the promotion of science and art in America. Those interested in land shells, however, do not need to be told that his son, Mr. William G. Binney, has well sustained his father's reputation in the same field. Dr. Binney was above the average height, robust, well formed and refined in appearance. His hair and eyes were very dark, and his expression grave and reserved. This and the somewhat severe tone of his voice was apt to convey to those who did not know him an impression of *hauteur*, which did not correspond to the real feelings of the man. An excellent biographical sketch is given by Dr. Gould in the first volume of the *Terrestrial Mollusks*, which was published in 1851. Dr. Binney was buried at Mount Auburn, where the monument which commemorates him is one of those to which the stranger's attention is always attracted.

CHARLES BAKER ADAMS.

Charles Baker Adams, one of the most industrious and best known American conchologists, was born in Dorchester, Massachusetts, on the eleventh of January, 1814. Of a family of six children he was the only one spared to his parents. When four years old his father, Mr. Charles J. Adams, removed permanently to Boston, where he engaged in business. At an early age the boy showed great interest in chemistry and natural history, in which he was encouraged by his parents, who gave him the use of a room for a laboratory and furnished the means for procuring chemicals and apparatus. The time usually given to play by most lads of his age was largely occupied by young Adams in experimenting with reagents or studying and arranging the various objects of natural history which he collected in excursions with his father or received from friends. He studied in the Boston schools, at Phillips Academy, Andover, and entered Yale College in October, 1830. In September, 1831, he removed to

Amherst, and joined the sophomore class, graduating in 1834 with the highest honors. Shortly afterward he entered the Theological Seminary at Andover, but in 1836 he left his studies of divinity to join Professor Hitchcock in prosecuting the geological survey of the State of New York. This work being terminated by the illness of Professor Hitchcock he returned to Amherst and busied himself, for several years, partly as a tutor at Amherst and partly by delivering lectures on geology at various educational institutions. In September, 1838, he became professor of chemistry and natural history at Middlebury College, Vermont, and the following February married Mary, daughter of the Rev. Sylvester Holmes, of New Bedford, Mass.

In 1845 he became State Geologist of Vermont, and continued the operations incident to that office for three years. Under his unremitting labors as a popular teacher in the college and his geological work in the field his naturally delicate constitution suffered, and he was obliged to seek a less rigorous climate. He visited the island of Jamaica in the winter of 1843-4, and in 1847 resigned his professorship at Middlebury to accept that of zoölogy and astronomy at Amherst. In the winter of 1848-49 he again visited Jamaica, and in November, 1850, he went to Panama, returning by way of Jamaica the following spring. Anxious to pursue further his investigations on the mollusk-fauna of the West Indian islands, Prof. Adams left for St. Thomas by way of Bermuda in December, 1852, arriving on the 27th, but in his weak condition became a victim of the pernicious malaria of that island, and, though tended with solicitude by his St. Thomas friends, died the 18th of January, 1853. A tablet was placed over his grave by the residents of St. Thomas as a memorial of their esteem and admiration for his character. The Professor's widow, four sons, and a daughter survived him.

Prof. Adams was of middle height, slender and delicate in appearance, with fine expressive eyes and a winning countenance.

In his domestic relations he was gentle and affectionate; in his friendships, faithful and generous. His earnestness and ability as a teacher gave him popularity and success in his college duties, while his private character was above reproach. He was quiet and studious in his habits, but had the true New England genius for hard work; having in his laboratory at the college an old green lounge, where it is said he sought repose in the early morning hours after many a night devoted to original research. Indeed, it is commonly reported among those who knew him that he relinquished to Nature only so much of his time as she imperatively demanded and fairly burned his candle at both ends. Notwithstanding his quiet ways, he was not a man to be imposed upon, and among the college legends, still passed from class to class at Amherst, are several which relate the signal discomfiture of would-be shirkers of their duties, which made him the terror of the lazy men in his classes.

Professor Adams' work was distinguished by care and accuracy, by a philosophical grasp unusual at that day, and which, had he been unhampered by the current theories of the creation and immutability of species, would have given him an even higher rank among naturalists. He monographed the mollusk-fauna of Panama, and did more than any other single naturalist toward making known the riches of the West Indian region. He emphasized the study of the geographical distribution of animals, and as a collector was unparalleled both in enthusiasm and success.

His remarkable collection (probably even now standing third or fourth in the United States in point of interest and value, and its number of contained types) he left under liberal conditions to Amherst College, where it still remains. His publications are among the classics of American conchology, and well bear comparison with many more pretentious works. Like most American naturalists Prof. Adams was never in affluent circumstances,

and the success of his labors was largely due to unremitting self-denial.*

PHILIP PEARSALL CARPENTER.

Philip Pearsall Carpenter, who, by his valuable labors on American mollusks and his residence in America, is fairly to be enrolled on the list of American conchologists, was born in Bristol, England, Nov. 4, 1819, and died at Montreal, Canada, May 24, 1877. He belonged to a family whose members have been renowned for their devotion to science, education, liberalism in all good things, and works of benevolence and charity. He described himself as a born teacher, but a naturalist by chance. But his interest in his favorite study developed early. When only twelve years old he had accumulated a large cabinet and mastered the classification of the day. He studied at the University of Edinburgh and at Manchester College, York, which became affiliated with London University, from which he received his degree in 1841. In 1846-58 he labored in the ministry at Warrington, and during this period prepared his classic Memoir on the Mazatlan Shells, and his report to the British Association on the state of our knowledge of the mollusk-fauna of the western coast of America. In December, 1858, he visited the United States and traveled extensively. In the winter of 1859-60 he came to the Smithsonian Institution, where he spent some five months at work upon the shell collections and delivered the lectures on Mollusca which were afterward printed in the Smithsonian Report. In 1860 he returned to England, where he married Miss Minna Meyer, of Hamburg. This union, though entered into somewhat late in life, was most happy. In 1863 he prepared a supplement to his British Association Report of 1856, which has been most useful to students of our west coast shells.

* His portrait and an appreciative biographical sketch by Thomas Bland, of which I have made unsparing use, may be found in the *American Journal of Conchology*, vol. 1, pp. 191-204, 1865.

In October, 1865, he left England for Montreal, which was thenceforth his home, and where his valuable collection, presented by him to McGill University, is suitably housed in the Peter Redpath Museum of that institution. During the period of his activity in Montreal he devoted himself largely to a monographic study of the *Chitonidæ*, with results of the utmost importance to their proper classification, but of which only a concise abstract has yet been published, though a large mass of MSS. had been prepared at the time of his death.

Dr. Carpenter received the degree of Doctor of Philosophy from the New York State University in 1860. He was a man of slight frame, below the middle height, and of striking personal appearance. He was brimful of enthusiasm not only in his studies, but in all that related to good health, morals, and practical religion. His audacity in confronting and attacking abuses was unparalleled, and, like most reformers, he met with much opposition and made many active opponents. But the rich charity of his nature, his single-minded devotion to what he believed to be right, and his disregard of his personal interests in all that concerned the promotion of reforms, made even the bitterest opponents concede him elements of character of which any man or community might be justly proud.*

THOMAS BLAND.

Thomas Bland, one of our best known naturalists, was born October 4, 1809, in Newark, Nottinghamshire, England. His father was a physician and his mother related to Shepard, the naturalist. He was educated at the famous Charter-House school, London, and was a classmate of Thackeray. Subsequently he studied and practiced law. He went to Barbados, West Indies,

* An excellent memoir of Dr. P. P. Carpenter, accompanied by a good portrait, was prepared by his brother, the Rev. Russell Lant Carpenter, and published by C. Kegan Paul & Co., London, in 1880.

in 1842, and later to Jamaica; visited England in 1850, and in the same year accepted the superintendency of a gold mine at Marmato, New Granada. While a resident of Jamaica, it was visited in 1849 by Prof. C. B. Adams, with whom Mr. Bland cultivated a warm friendship. Stimulated by the enthusiasm of Adams, Bland began those investigations of the land shells for which he afterward became so distinguished. In 1852 he came to New York, which for most of his subsequent life became his home. Here his business lay chiefly in the direction of the affairs of mining companies, with several of which he was connected. He was a man of rather dark complexion, with brilliant dark eyes; somewhat bowed by ill health, induced by his long residence in the tropics, he seemed rather below the middle height. He was of a studious and rather grave demeanor, but notably courteous, and always ready to assist young students or others interested in his favorite pursuit. He avoided controversy, and in spite of his extreme modesty was several times called to posts of honor and responsibility. By those privileged to know him he was held in high esteem, which was not lessened by his bearing under the adversity which unfortunately clouded his later years. Mr. Bland was the author of more than seventy papers treating of the Mollusks, especially of the United States and of the Antilles. His work was not confined to the description of species, but comprised valuable contributions to their anatomy, classification, geographical distribution, and the philosophy of their development. No American conchologist has shown a more philosophic grasp of the subject, and his discussion of the distribution of the land shells of the West Indies, published in 1861, gave him a wide reputation. He several times returned to this subject in later years, and always with marked success. Since 1869 Mr. Bland was associated with Mr. W. G. Binney in several important works on the terrestrial mollusks of North America. Mr. Bland was a fellow of the Geological Society,

and for many years an active member of the New York Lyceum of Natural History. He died after an illness of several years' duration in Brooklyn, N. Y., August 20, 1885. A convenient bibliography of his papers was prepared by Mr. Arthur F. Gray in 1884, and his portrait is to be found in the *American Journal of Conchology*, vol. ii, pt. 4, 1866.

WILLIAM STIMPSON.

In the case of William Stimpson we have a good instance of how not merely disadvantageous circumstances may be defied but positive opposition conquered by what may be called an innate devotion to the study of nature. He was born in Roxbury, now within the charter limits of Boston, Feb. 14, 1832. His parents were Herbert H. Stimpson, who, I am informed, was of Virginian origin, and Mary Ann Brewster, of a good New England family. Mr. Stimpson dealt in stoves and ranges, in partnership with his brother Frederick, at Congress and Water streets, Boston, for many years. He was a successful business man, though not liberally educated, and introduced certain improvements into cooking ranges, of which one kind was long familiar to Boston housewives under the name of the "Stimpson range." The early education of the son was in the common schools, and in his sixteenth year he seems to have shown unusual mental powers, as we find him entering the upper class of the Boston High School in September, 1847, from which he graduated the following July. Even before this time he had become deeply interested in natural history. A copy of Gould's *Invertebrata of Massachusetts* having fallen into his hands his attention was directed towards these animals. He presented himself to the author of the work to find out if it were possible for a copy to be had for his very own. Dr. Gould, with his never-varying kindness, gave him an order on the State librarian for one of the books, and the exulting joy with which the

boy marched out of the State House with the coveted volume under his arm was never forgotten by him and often related in after years. But Dr. Gould's kindness did not stop here; he brought young Stimpson to the notice of Agassiz, then in the first flush of successful teaching at Cambridge, and introduced him to the Boston Society of Natural History. His relatives were anxious that the boy should go into business; his excursions to the sea-shore and the dredging work which, unaided, he had already begun, were looked on with no favorable eye, and only the urgent representations of some of those who had become interested in the boy and saw in him a capacity for better things, saved him from a fate he detested. As a compromise he was sent out with a civil engineer to learn that profession, but his employer declared he was too fond of hunting for land shells to make a good surveyor, and advised that he be allowed to follow the career which his inclinations so strongly declared for. He was allowed to enter the Latin School in 1848. The following summer he managed by some means to get off on a fishing smack bound for Grand Manan, and devoted his whole energies to the collection and study of the marine animals of that vicinity. Still, in the face of strong opposition, he succeeded in joining the workers at Agassiz' laboratory in October, 1850. Wherever he went his enthusiasm and lovable qualities raised up friends, and through their aid an appointment was secured to him as naturalist to the North Pacific exploring expedition under Ringgold (later commanded by Captain John Rodgers, U. S. N.), which was sent out by the United States in 1852. With a paid appointment in Government service, those who had persistently opposed his ambition began to give way and confess that there might be something in it after all, though doubtless laying greater stress on that "something" for which Stimpson cared least.

He joined the expedition Nov. 23, 1852, and was absent four years, during which he visited Japan, Bering Strait, and many

other localities of the greatest interest to the naturalist. No general report on the voyage has yet appeared, and Stimpson's report on the crustacea with its beautiful illustrations still remains in manuscript.

He began to work up his materials at Washington, and for purposes of study visited Europe, dredged on the British coast, and made hosts of friends across the Atlantic.

His preliminary studies of the radiates and crustacea of the expedition ensured his place among the most promising of the young naturalists of the day, and were expressed in elegant Latin. He prepared and published the investigations into marine life made at Grand Manan, and was the leader of an enthusiastic band of students who gathered in the museum of the Smithsonian Institution for work under the influence of Henry and Baird, kept bachelor's hall together under the sobriquet of the Megatherium Club, and instituted the first biological society in Washington under the name of the Potomac-side Naturalists' Club. Most of them subsequently reached distinction in the pursuit of science.

About 1860, Stimpson received the honorary degree of M. D. from the Columbian University. He was afterwards a member of the National Academy of Sciences, instituted while the country was in the midst of its fiercest military struggle. On the twenty-eighth of July, 1864, he married Miss Annie Gordon, of Ilchester, Maryland.

Robert Kennicott, of Illinois, whose name rouses affectionate remembrance in the minds of all who knew him, was Director of the Chicago Academy of Sciences, whose establishment and progress were for the most part due to his enthusiasm, ability, and persistence. He had been a member of the Megatherium Club, and was a devoted friend of Stimpson. He was about to undertake those explorations in Alaska from which he never returned. He knew that his undertaking was arduous, and its outcome uncertain. His child, the Academy, must be provided for, and its

fate not left to accident. Stimpson was the man for the post and was selected. The institution was thriving, with a large membership, an excellent collection, and the nucleus of a library. In June, 1866, the building and nearly all its contents became a prey to fire. But the trustees had suitably insured the collection and, with the growing prosperity of the Society, due largely to Stimpson's social tact and attractive personality, the Academy purchased ground, put up a fire-proof building, and rose like a Phoenix with new vigor from the ashes.

Here Stimpson assembled as in a sure harbor the manuscripts, collections, engravings, and drawings of a lifetime.

He had the finest and most complete collection of East American invertebrates which had ever been brought together, with a vast amount of illustrative material from Europe, the Arctic regions, and other parts of the world. Books and specimens which he did not own were freely lent to him by the Smithsonian and by Eastern naturalists, for was he not a scientific missionary, a biological bishop, *in partibus infidelium*, in the land where the almighty dollar reigned supreme? And more important still, the Academy was fire-proof.

A manual of marine invertebrates of the coast from Maine to Georgia was in preparation for the Smithsonian Institution; there was already much manuscript and many beautiful engravings.

All the Smithsonian shell-fish in alcohol were there; Pourtales sent his unspeakable treasures newly ravished from the depths of ocean. On every hand a wealth of material, a host of indulgent friends and correspondents, a prospect of good work for science, education, patriotism.

On the 8th of October, 1871, a small fire broke out in South Chicago, which was not extinguished. In forty-eight hours the Queen City of the Northwest was practically in ashes.

The temple of religion, the refuge of the sick and destitute, the palace of the millionaire, the shanty of the day-laborer, the